



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-3705; Directorate Identifier 2015-NM-168-AD]**

**RIN 2120-AA64**

**Airworthiness Directives;** Textron Aviation Inc. (Type Certificate Previously Held by Cessna Aircraft Company) Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Textron Aviation Inc. Model 680 airplanes. This proposed AD was prompted by Cessna's report of a manufacturing defect which affects the durability of the aft canted bulkhead metallic structure. The manufacturing defect directly affects the bond integrity of the vertical and horizontal stiffeners on the aft canted bulkhead metallic structure. This proposed AD would require repetitive inspections of the aft canted bulkhead, and repair if necessary. This proposed AD would also require a modification, which would terminate the repetitive inspections. We are proposing this AD to prevent disbonding of the horizontal and vertical stiffeners on the aft canted bulkhead. Loss of bond integrity could result in a structural failure that could lead to separation of the cruciform tail and loss of control of the airplane.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Textron Aviation Inc., P.O. Box 7706, Wichita, KS 67277; telephone 316-517-6215; fax 316-517-5802; email [citationpubs@txtav.com](mailto:citationpubs@txtav.com); Internet <https://support.cessna.com/custsupt/csupport/newlogin.jsp>. You may review this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-3705; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office

(phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Paul Kalowski, Aerospace Engineer, Airframe Branch, ACE-118W, Wichita Aircraft Certification Office (ACO), FAA, 1801 Airport Road, Room 100, Dwight D. Eisenhower Airport, Wichita, KS 67209; phone: 316-946-4186; fax: 316-946-4107; email: paul.kalowski@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2016-3705; Directorate Identifier 2015-NM-168-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

**Discussion**

This proposed AD was prompted by Cessna’s report of a manufacturing defect that affects the durability of the aft canted bulkhead metallic structure. The manufacturing defect directly affects the bond integrity of the vertical and horizontal

stiffeners on the aft canted bulkhead metallic structure. This disbonding is caused by a loss of durability in the metal-to-metal bondline, which resulted from a reduced autoclave cure cycle dwell time and temperature during manufacturing. This condition, if not detected and corrected, could result in a structural failure that could lead to separation of the cruciform tail and loss of control of the airplane.

#### **Related Service Information under 1 CFR part 51**

We reviewed the following Cessna service information.

- Cessna Service Letter SL680-53-05, Revision 2, dated September 30, 2015. The service information describes procedures for a general visual inspection for disbonding and paint cracking around the edges of the stiffeners on the aft canted bulkhead.

- Cessna Service Bulletin SB680-53-08, dated September 28, 2015. The service information describes procedures for modifying the airplane by installing additional stiffeners to the aft canted bulkhead.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

## **Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between this Proposed AD and the Service Information.”

## **Differences between this Proposed AD and the Service Information**

Although Cessna Service Letter SL680-53-05, Revision 2, dated September 30, 2015, specifies reporting the inspection results to Cessna, this proposed AD would not require those actions.

Although Cessna Service Letter SL680-53-05, Revision 2, dated September 30, 2015, specifies that operators may contact the manufacturer for disposition of certain conditions, this proposed AD would require operators to repair those conditions in accordance with a method approved by the FAA.

Although Cessna Service Letter SL680-53-05, Revision 2, dated September 30, 2015; and Service Bulletin SB680-53-08, dated September 28, 2015; use the term “debond” to describe full or partial separation of a stiffener from the aft canted bulkhead structure, this proposed AD instead uses the term “disbond.”

## **Costs of Compliance**

We estimate that this proposed AD affects 123 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspection	1 work-hour X \$85 per hour = \$85 per inspection cycle	\$0	\$85 per inspection cycle	\$10,455 per inspection cycle

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Modification	180 work-hours X \$85 per hour = \$15,300	\$3,190	\$18,490	\$2,274,270

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

#### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Textron Aviation Inc. (Type Certificate Previously Held by Cessna Aircraft Company):** Docket No. FAA-2016-3705; Directorate Identifier 2015-NM-168-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Textron Aviation Inc. (Type Certificate Previously Held by Cessna Aircraft Company), Model 680 airplanes, certificated in any category, as identified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Model 680 Sovereign airplanes (commonly known as Citation Sovereign airplanes), having serial numbers: 680-0001, -0002, -0006, -0025, -0030, -0031, -0032, -0046, -0051, -0057, -0064, -0066, -0067, -0082, -0104, -0108, -0112, -0118, -0120, -0125, -0132, -0139, -0140, -0141, -0144, -0147, -0148, -0149, -0153, -0157, -0160, -0162, -0163, -0164, -0166, -0167, -0169, -0170, -0171, -0173, -0174, -0175, -0176, -0177, -0178, -0179, -0180, -0182, -0183, -0185, -0186, -0192, -0193, -0196, -0200, -0202, -0204, -0205, -0206, -0208, -0211, -0216, -0220, -0221, -0222, -0227, -0229, -0230, -0231, -0234, -0235, -0236, -0238, -0241, -0242, -0243, -0245, -0246, -0249, -0252, -0253, -0255, -0256, -0257, -0258, -0260, -0262, -0268, -0270, -0271, -0280,



-0282, -0283, -0284, -0285, -0289, -0291, -0292, -0296, -0297, -0300, -0301, -0302, -0303, -0304, -0306, -0307, -0313, -0315, -0317, -0318, -0322, -0323, -0324, -0327, -0328, -0329, -0333, -0334, -0336, -0337, -0339, -0340, -0342, -0344, -0346, -0347, -0348, and -0349.

(2) Model 680 Sovereign airplanes (commonly known as Citation Sovereign+ airplanes) having serial numbers: 680-0501, -0504, -0505, -0509, -0510, -0511, -0512, -0513, -0514, -0515, -0516, -0517, -0519, -0520, -0522, -0524, -0525, -0526, -0527, and -0531.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by Cessna's report of a manufacturing defect which affects the durability of the aft canted bulkhead metallic structure. The manufacturing defect directly affects the bond integrity of the vertical and horizontal stiffeners on the aft canted bulkhead metallic structure. We are issuing this AD to prevent disbonding of the horizontal and vertical stiffeners on the aft canted bulkhead. Loss of bond integrity could result in a structural failure that may lead to separation of the cruciform tail and loss of control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Repetitive Inspections**

Before the accumulation of 7,000 total flight hours, or within 100 flight hours after the effective date of this AD, whichever occurs later, perform a general visual

inspection for disbonding and paint cracking around the edges of the stiffeners on the aft canted bulkhead, in accordance with the Accomplishment Instructions of Cessna Service Letter SL680-53-05, Revision 2, dated September 30, 2015. Repeat the general visual inspection thereafter at intervals not to exceed 100 flight hours, until the modification required by paragraph (i) of this AD is accomplished.

**(h) Repair**

If, during any inspection required by paragraph (g) of this AD, any disbonding or cracked paint is found, before further flight, repair in accordance with a method approved by the Manager, Wichita Aircraft Certification Office (ACO), ACE-118W, FAA.

**(i) Modification**

At the applicable compliance time specified in paragraph (i)(1) or (i)(2) of this AD, modify the airplane by installing additional stiffeners on the aft canted bulkhead, in accordance with the Accomplishment Instructions of Cessna Service Bulletin SB680-53-08, dated September 28, 2015. Doing this modification terminates the repetitive inspections required by paragraph (g) of this AD.

(1) For airplanes that have accumulated 7,000 or more total flight hours as of the effective date of this AD: Within 1,800 flight hours or 24 months, whichever occurs first, after the effective date of this AD.

(2) For airplanes that have accumulated less than 7,000 total flight hours as of the effective date of this AD: Within 3,600 flight hours or 48 months, whichever occurs first, after the effective date of this AD.

**(j) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using the service information identified in paragraph (j)(1) or (j)(2) of this AD, which is not incorporated by reference in this AD.

(1) Cessna Service Letter SL680-53-05, dated December 22, 2014.

(2) Cessna Service Letter SL680-53-05, Revision 1, dated March 12, 2015.

**(k) No Reporting Requirement**

Although Cessna Service Bulletin SB680-53-08, dated September 28, 2015; and Cessna Service Letter SL680-53-05 Revision 2, dated September 30, 2015; specify to submit certain information to the manufacturer, this AD does not include that requirement.

**(l) Special Flight Permit**

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

**(m) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Wichita ACO, ACE-118W, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (n)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(n) Related Information**

(1) For more information about this AD, contact Paul Kalowski, Aerospace Engineer, Airframe Branch, ACE-118W, FAA, Wichita ACO, 1801 Airport Road, Room 100, Dwight D. Eisenhower Airport, Wichita, KS 67209; phone: 316-946-4186; fax: 316-946-4107; email: paul.kalowski@faa.gov.

(2) For service information identified in this AD, contact Textron Aviation Inc., P.O. Box 7706, Wichita, KS 67277; telephone: 316-517-6215; fax: 316-517-5802; email: citationpubs@txtav.com; Internet: <https://support.cessna.com/custsupt/csupport/newlogin.jsp>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on February 18, 2016.

Dionne Palermo,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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